X

PROGRESS REPORT

OF

FOREST ADMINISTRATION

IN THE

ANDAMANS

FOR

1888-89.

BY

E. G. CHESTER, Esquire,

DEPUTY CONSERVATOR OF FORESTS.

WITH REMARKS BY THE SUPERINTENDENT OF PORT BLAIR,

AND

ORDERS BY THE GOVERNMENT OF INDIA.

1890.

No. 38 F., dated Simla, the 24th January 1890.

From—SIR E. C. BUCK, Secretary to the Government of India,

To—The Superintendent of Port Blair and the Nicobars.

I AM directed to acknowledge the receipt of your letter No. 858, dated the 16th August last, submitting the Progress Report of Forest Administration in the Andamans for the year 1888-89, together with your remarks on the work done by the Department during the year.

2. As the whole area of the Andamans, with the exception of the portions which have been cleared for settlement, is practically "Government Forest," this area should, in conformity with the practice followed by other Administrations, be entered in the Returns accompanying the Report as "Unclassed State Forest." The ten acres which have, hitherto, appeared as the area of "Reserved Forests" under the control of the Department have been rightly omitted in the present Report, but the area indicated above should be given in Form No. 49 of future Reports.

3. Working-Plans have not as yet been prepared for any portions of the Andamans forests. Such Plans will, however, be required as soon as a steady demand for a sufficiently large quantity of produce has been established, and, as this contingency would now appear to be within measurable distance of realization, it is desirable that at least a scheme for working the forests for a short period of years should be prepared in advance.

4. No permanent staff is employed for the protection of the Andamans forests, to which the Forest Act has not been extended, and no prosecutions for breaches of the Forest Rules were instituted. The forests do not require to be protected either from fire or from cattle. Their maintenance and improvement is, therefore, a simple matter, provided that, where fellings are being carried on, sufficient attention is paid to the requirements, as regards reproduction, of the more valuable species, especially the Padouk. It is to be regretted that little or no information has as yet been obtained with regard to the manner in which this species propagates itself naturally, and the precautions required to ensure its maintenance in the areas felled over. I am to request that you will direct the special attention of the local Forest Officer to the remarks on this subject contained in paragraph 3 of the letter No. 181F., dated the 27th February last, from this Department, reviewing the results of the previous year's working of the Forest Department in the Andamans.

It is to be regretted that no addition was made during the year to the area planted, especially as the proposal in your letter forwarding the previous year's Report, that in view of the favourable results of teak planting the experiment should be continued, met with the approval of His Excellency in Council.

5. No trees were girdled during the year, the Forest Officer being apparently of opinion that the number of trees already girdled is sufficient to meet the present demand. The number of trees *felled* was greater than in the previous year, being as follows:—

Padouk, in 1888-89	495; in 1887-88	382
Other kinds, in 1888-89	3,037; in 1887-88	2,237
TOTAL	3,532; in 1887-88	2,619

The outturn of produce from the forests was also greater during the year under review than in the previous year, as will appear from the following statement:—

Year.	REMOVED BY																			
	GOVERNMENT AGENCY.				PURCHASERS.				DISTRICT OFFICERS.				FREE GRANTS.				TOTAL.			
	Timber.	Fuel.	Bamboos.	Minor produce	Timber.	Fuel.	Bamboos.	Minor produce.	Timber.	Fuel.	Bamboos.	Minor produce	Timber.	Fuel.	Bamboos.	Minor produce.	Timber.	Fuel.	Bamboos.	Minor produce.
	C. ft.	C. ft.	No.	Rs.	C. ft.	C. ft.	No.	Rs.	C. ft.	C. ft.	No.	Rs.	C. ft.	C. ft	No.	Rs.	C. ft.	C. ft.	No.	Rs.
1888-89 ...	217,189	...	...	...	33,663	17,250	146,000	578	82,649	928,714	216,385	631		120,000	No attempt has been made to calculate the value of the produce removed.		333,501	1,065,964	762,385	1,209
1887-88 ...	177,863	...	...	...	35,284	33,000	168,000	454	45,917	730,662	260,181	1,559		120,000			259,064	873,662	428,181	2,013
Increase or decrease in 1888-89	+ 39,326	.	...	...	−1,621	−15,750	−22,000	+ 124	+ 36,732	+208,052	−43,796	− 928			...	...	+ 74,437	+192,302	−65,796	− 804

There was no exportation of Padouk timber to London during the year, but a cargo was ready for shipment as soon as that despatched in the previous year has been disposed of. It is understood that the greater part of this shipment has been sold off at satisfactory prices since the close of the year.

6. The financial results of the year's working are satisfactory, the net surplus on the year's transactions being nearly Rs. 49,000, as compared with a little over Rs. 41,000 during the previous year. The receipts and charges are shown in detail in the following statement:—

Year.	Receipts.	Charges.	Surplus.	Proportion of Surplus to Gross Revenue.
	Rs.	Rs.	Rs.	Per cent.
1888-89	1,06,075	57,295	48,780	46
1887-88	1,04,062	62,679	41,383	40
Increase or decrease in 1888-89	+2,013	−5,384	+7,397	+ 6

It is stated that, including the value of the stock in depôt added during the year, the real net surplus on the year's working amounts to Rs. 92,647.

The Chapter on financial results in Mr. Chester's Report contains much unnecessary matter. No distinction, for instance, need be made between cash transactions and book transfers, and any comparison of 'actuals' with 'budget estimates' is out of place in an Annual Progress Report.

7. The Government of India is glad to observe that Mr. Chester's supervision of the timber operations has given satisfaction, and trusts that this officer will, under your orders, apply equal energy to the development of the supply of teak and padouk in the islands, in pursuance of the instructions conveyed in paragraph 4 of this letter.

G. C. Press, Simla.—No. 812 R. & A. D.—31-1-90.—225.

PROGRESS REPORT OF FOREST ADMINISTRATION IN THE ANDAMANS FOR 1888-89.

No. 858, dated Port Blair, the 16th August 1889.

From—COLONEL T. CADELL, V.C., *Superintendent of Port Blair,*.

To—*The Secretary to the Government of India, Revenue and Agricultural Department.*

I HAVE the honour to submit, in original, for the information of the Government of India, letter No. 363, dated 6th instant, from the Deputy Conservator of Forests, Port Blair, together with his Annual Report for the year 1888-89, and, in doing so, beg to submit a few comments thereon.

2. The appointment of Forest Officer was held by Mr. M. S. Fowler up to the 4th October, when he was compelled by ill-health to leave. His duties were taken over by Mr. Godwin-Austen, Assistant Superintendent, until relieved on the 22nd November by Mr. E. G. Chester, the present incumbent. Colonel Tucker, under whom Mr. Chester served to the end of the year, was favourably impressed with his work, and spoke in high terms of his energetic supervision of the timber operations. In this opinion I fully concur.

3. The plantations were not extended during the year. The up-keep of the 59 acres planted in previous years cost R336. These plantations are reported to be doing well.

4. No girdling was done; 3,532 trees were felled, as compared with 2,629 trees in the previous year. These 3,532 trees were cut into 7,481 logs, including 893 logs padouk, the out-turn of 495 of the trees. The number of logs cut compares as follows with the number in previous years:—

1886-87	7,173 logs.
1887-88.	4,198 „
1888-89	7,481 „

5. No timber was shipped at Shoal Bay during the year, but a cargo was prepared there, which, on advice from London, is to consist half of beams and half of squares: 277 tons of beams and 455 tons squares were ready by the close of the year.

6. The logs sold to local departments at the water's edge were—

1,372 logs = 46,782 cubic feet, as compared with 1,499 logs in 1887-88.

5,683 logs were floated to Haddo Depôt, as compared with 4,254 in 1887-88.

5,572 logs (133,023 cubic feet) were sold from the Haddo Depôt, as compared with 3,546 (97,442 cubic feet) in 1887-88.

Of the 5,572 logs sold from Haddo Depôt, 5,559 logs (= 132,698 cubic feet) were sold to local departments

7 logs = 190 cubic feet, to the Indian Marine, Calcutta.

5 logs = 134 cubic feet, to the Indian Marine, Bombay.

1 log = 1 cubic foot, to a private purchaser.

The total quantity sold at Port Blair during the year was thus:—

6,944 logs = 179,806 cubic feet, consisting of—

I Class.	II Class.	III Class.	IV Class.	V Class.	Total C. ft.
24,355	32,441	47,056	71,978	3,975	179,806

as compared with the following for 1887-88:—

27,692	33,080	29,996	60,364	4,258	155,390

and a total for 1886-87 of 105,233

The balance at the close of the year was:—

In forest	999	logs and	40 planks.
At water's edge	189	„	18 „
In Depôt { Haddo	646	„	111 „
In Depôt { Port Blair	432	„	2,465 „

as compared with the following balances at the close of the previous year:

In forest	1,300 logs.
At water's edge	442 „
In Depôt (Haddo only)	663 „

Of the above 999 logs, it must be stated that the possibility of recovering 548 is more than doubtful. These logs have been brought forward month after month on our returns for years.

8. The timber turned out by the Chatham Saw Mill was—

		C. ft.
Padouk squares	50	1,492
Marble-wood „	6	69
Mahwa „	7	103
Gangaw „	10	108
Lakuch „	26	296
Padouk planks	...	541
Gurjun „	...	8,934
Thitmin „	...	4,284
Padouk scantling	96	243
Gurjun	609	526
	804	16,596

all of which was sent to Calcutta, and 6,042 cubic feet more gurjun planks which were sent to Rangoon.

No tea-boxes were prepared or exported during the year.

9. The quantity of gurjun planks, 14,976 cubic feet, exported (8,934 cubic feet to Calcutta and 6,042 to Rangoon) was slightly less than in the previous year when 15,242 cubic feet were exported, but as shewn in paragraphs 31 and 33 of the Report, these transactions resulted in a loss.

10. The Saw Mill prepared 541 cubic feet padouk planks as compared with 90 in the previous year, but only 1,492 cubic feet padouk squares as against 2,508 in the previous year. The total quantity sawn by the mill for the Forest Department was 22,638 cubic feet as compared with 21,178 cubic feet in the previous year.

11. The exports of timber were, however, less in consequence of no direct shipment to London.

The exports were (return No. 56) the above timber shown as sawn by the Chatham Mill with the addition of 95 padouk planks = 1,040 cubic feet transferred from Haddo to Calcutta, making a total of 23,678 cubic feet as compared with 51,295 cubic feet in the previous year.

If however the cargo of the *Ame Main*—

	c. ft.	c. ft.
669 padouk squares	25,090	26,987
171 „ planks	1,897	

be deducted from this last figure, the exports during the year were 23,678 cubic feet as compared with 24,308 of the previous year.

12. The following comparative statement of the financial results of the two years shows favourably for the year under report :—

	1887-88.	1888-89.
Revenue.	R.	R.
Cash	34,799	26,995
Book transfer	69,263	79,079
TOTAL	1,04,062	1,06,074
Expenditure.		
Cash	26,441	18,310
Book transfer	36,238	38,985
TOTAL	62,679	57,295
Surplus on cash transaction	8,358	8,685
	33,025	4,094
TOTAL SURPLUS	41,383	48,779

Adding the value of the increase of stock in depôt, and deducting the depreciation in the value of elephants, the Deputy Conservator makes the actual nett surplus to be R92,646.

13. Mr. Chester, however, in paragraphs 28 to 33 of his report, explains the unsatisfactory results of the system, which was introduced in January 1887, during my absence from Port Blair, of the Forest Department taking credit at certain rates for timber made over by it to the Steam Saw Mill at Chatham, then buying it back and selling it at a nominal profit or loss to the Department.

Some of the results were, as explained by Mr. Chester, that the Forest Department received credit for R76-5 per ton of padouk planking, for which only R75 were realized in Calcutta, Agent's charges, &c., having to be deducted from the latter sum, and the Saw Mill nominally lost R67-9 per ton on the transaction.

Again, the Forest Department nominally lost R15-2 per ton on fourth class timber—principally gurjun exported—and (nominally) sold two-fifths of its timber for nothing.

14. This confusion will be avoided in future; as the management of the Saw Mill has been entrusted to the Deputy Conservator, the timber will remain the property of the Forest Department until disposed of, and fixed rates will be paid to the Saw Mill for cutting it up.

15. The revenue received and the outstandings on account of revenue are given in return No. 60. The outstandings at the commencement of the year were R15,094, all recovered during the year except R3,065. The outstandings at the close of the year were R16,081.

16. The accounts of the year would have looked more favourable, had the proceeds of the sale of the cargo of the *Anne Main*, for which credit for R48,600 was taken in the budget estimate, been realised.

17. No deaths occurred among the 19 elephants in the Settlement, but one escaped into the forest and has not been recaptured.

No. 366, dated Port Blair, 6th August 1889.

From—E. G. CHESTER, Esq., *Deputy Conservator of Forests, Andamans,*

To—*The Chief Commissioner of the Andamans and Nicobars.*

I HAVE the honour to submit the Annual Report of the Forest Department for 1888-89, accompanied by returns in forms Nos. 52, 53, 54, 55, 56, 57 (A and B), 58, 59, 60, 61, 62. Returns Nos. 49, 50, 51 are blank.

REPORT

ON THE

FORESTS OF THE ANDAMANS

FOR THE YEAR

1888-89.

CHAPTER I.

Area and Boundaries.

The area cleared of forest during the year was 845 acres, of which 481 acres are situated in the Northern District, and 364 acres in the Southern.

These areas include 17 acres mangrove swamp in the Southern District.

The area previously cleared was 16,968 acres, and the total up to the end of the year under review 17,813 acres, or nearly 28 square miles.

2. There are no Reserved Forests or Protected Forests in the Andamans: the Forest Act, as mentioned in the Government of India Resolution on the Report for 1886-87, has not been extended to the Andamans. The area of 10 acres teak plantation at Navy Bay, entered in former years in return No. 49, is now omitted.

This return is blank.

CHAPTER II.

Surveys, Working-Plans, and Annual Plans-of-Operations.

3. In this chapter there is nothing to record.

CHAPTER III.

Protection and Improvement.

1. Establishment.

4. Mr. M. S. Fowler, Deputy Conservator of Forests, was in charge of the Forest Department till the forenoon of 4th October 1888, when he proceeded on leave on medical certificate, making over charge to Mr. H. Godwin-Austen, Assistant Superintendent of the Settlement. Mr. E. G. Chester, Deputy Conservator of Forests, took charge from Mr. Austen on the forenoon of 22nd November 1888.

5. The subordinate staff has consisted of two foresters, an elephant doctor, two (latterly three) clerks, with convict petty officers in charge of each gang of labourers, and a convict munshi to keep the accounts at each forest and sale depôt.

2. General Protection and Breaches of Forest Law.

6. No protective staff is entertained. No prosecutions took place.

3. Forest Fires.

7. Fires do not occur in the Andaman Forests.

4. Grazing and Fencing.

8. There is no grazing in the forests.

5. Natural Reproduction.

9. With reference to observations on the reproduction of padouk in reports of former years, there is no doubt that this species does sometimes reproduce itself. At Goplakabang, for instance, several clumps of naturally-grown padouk saplings are found in the forests. The Deputy Conservator hopes to be able to give a more mature opinion next year.

6. Artificial Reproduction.

Regular Plantations.

10. No extension was made during the year 1888-89. The areas of previous years are doing well. In that of 1887-88 the plants, both padouk and teak, are strong, and there are practically no vacancies.

The 20 feet broad lines cut through the forests and planted down the middle in 1886-87 with padouk are clean, and the seedlings are healthy; and though they do not grow as rapidly as those in the open plantation, they have evidently established themselves. 'It does not seem likely that the canopy will close over the lines for some years to come, and it is probable that this system of planting would prove the cheaper in the end, and at the same time guarantee a sufficient proportion of the planted species in the future forest.

The cost of up-keep of the plantation during the year was R336.

7. Communications and Buildings.

11. There is nothing to remark under this head, works on roads and buildings being generally executed by the District Settlement Officers.

CHAPTER IV.

Yield and Working.

1. Departmental Operations.

12. No trees were girdled during the year. Trees were girdled in previous years in excess, and many trees are now found rotten and unfit for felling: this is more especially the case with toungbeing (*artocarpus chaplasha*), chonnu (*croton argyratus*), and marble-wood.

The serial numbers affixed to the trees when they were girdled are now generally illegible, so the registers of girdling operations are of reduced value.

As per form No. 53 attached, 3,532 trees were felled during the year, all girdled in previous years, except the gurjun, simal, chaiwood, mangrove and papita, which trees are cut green.

The padouk timber brought to the Pirij Depôt for despatch to London had all been felled green in previous years. These 3,532 trees yielded 7,181 logs in all, including 893 logs padouk, the outturn of 495 trees.

13. Form No. 54 gives the outturn of the forest during the year as follows :—

Timber—

Removed by the Forest Department	217,189 C.ft.	or	4,344 tons.
„ „ purchasers	29,663 „	„	593 „
„ „ District Officers	29,689 „	„	594 „
TOTAL	276,541 „	„	5,531 „

Post, bullies, &c.—

Removed by purchasers	4,000 C.ft.	or	80 tons.
„ „ District Officers	52,960 „	„	1,059 „
Fuel—			
Removed by purchasers	17,250 „	„	345 „
„ „ District Officers	928,714 „	„	18,574 „
„ on free grants (estimated) . . .	120,000 „	„	2,400 „
TOTAL .	1,399,465 „	„	27,989 „

14. On the receipt of timber in the log in Forest Depôt and the Haddo Depôt, the number of logs of each kind is registered, but the logs are not measured until their issue from Haddo, so the exact contents of the logs in these depôts are not known. In the above and following figures of opening and closing balances and of receipts in Haddo, the contents of the logs are estimated on the average contents of logs issued of the same species.

This remark does not apply to the stock at Pirij of which the contents are registered.

The logs extracted from the forest averaged about 27 cubic feet.

15. The Pirij Depôt has been classed as a sale depôt, as it is necessary in returns Nos. 56, 57 to take into account the large stock accumulated here for export to London.

16. The following are the sale depôts:—

Haddo, Pirij, Calcutta, Rangoon, London.

The detailed transactions in each depôt are given in return No. 56; the following are extracted from that return:—

Haddo Depôt :—

Opening balance	582 logs	= about	14,393 or	288 tons (excluding planks).		
Closing „	646 „	= „	14,403 „	288 „	„	
The receipts from forests were	5,683 „	= „	131,870 „	2,637 „		
The sales were	5,572 „	= „	133,023 „	2,660 „		
	65 slabs	=				

In addition to these sales the following timber was received from the forest and sold locally at the water's edge in Forest Depôts:—

1,372 logs 46,782 C.ft. or 936 tons.

and at Pirij 2 slabs 1 „

making a total quantity sold of 7,011 pieces = 179,806 C.ft. or 3,596 tons.

The following table shows the classes of timber and to whom the sales were made:—

	I Class.	II Class.	III Class.	IV Class.	V Class.	TOTAL.
	C.ft.	C.ft.	C.ft.	C.ft.	C.ft.	C.ft.
Northern District Officer . .	7,062	12,785	14,125	4,335	205	38,512
Do. Chatham Saw Mill . .	15,947	3,450	12,206	61,327	205	93,135
Southern District Officer . .	555	15,955	18,840	6,041	3,564	44,955
Port Officer	790	72	1,812	204	...	2,878
Indian Marine (Calcutta) . . .	...	48	73	69	...	190
Ditto (Bombay) . . .	...	134	...	...	...	134
Public	1	...	...	...	1	2
TOTAL .	24,355	32,444	47,056	71,976	3,975	179,806

The sales in the previous year were—

I.	II.	III.	IV.	V.	TOTAL.
27,692 C.ft.	33,080 C.ft.	29,996 C.ft.	60,364 C.ft.	4,258 C.ft.	155,390 C.ft.

and in 1886-87 the total was 105,233 cubic feet, so there has been a steady increase during the last two years.

17. *Pirij Depôt.*—

	Logs (squares).			Planks.		
	No.	C.ft.	Tons.	No.	C.ft.	Tons
Opening balance	167	8,812	or 176	...	...	...
Received from forests	784	38,537	„ 771	...	...	...
Received by conversion in depots	...	...	...	2,465	13,873	or 277
Converted into planks	471	23,042	or 461	...	...	...
Ditto	*48	1,537	„ 31	..	...	...
Closing balance	432	22,770	„ 455	2,465	13,873	or 77

At the close of the year, 455 tons square padouk timber and 277 tons beams and planks were ready for export to London. No timber was despatched direct to London during the year.

18. *Calcutta Depôt.*—The details are given in return No. 56. In the case of planks the cubic contents are sometimes given without the number, as the numbers in the returns sometimes refer to planks and sometimes to bundles of planks.

The opening balance was—

		C. ft.		C. ft.
Padouk squares	77	1,889		
„ planks	...	2,234		
„ Telegraph posts	100	365		
Gurjun spars	17	1,711		
Miscellaneous planks		415	194	6,614

The receipts were—

Padouk squares	50	1,492		
„ planks	..	541		
„ „		1,010		
„ scantlings	96	243		
Other squares	49	576		
Thitmin planks		4,284		
Gurjun „	...	8,934		
„ scantlings	609	526	804	17,636

All this timber was sawn at the Chatham Saw Mill, except the 1,040 cubic feet padouk planks.

The sales and the amounts realised were—

		C.ft.	R	a.	p.		
Padouk squares	117	2,968	3,536	1	3	I	Class timber.
Lakuch „	26	297	256	2	11	II	„ „
Gangaw „	10	118	102	13	4	III	„ „
Mohwa „	7	96	84	0	7	„	„ „
Marble-wood squares	6	68	81	7	4	V	„ „
Padouk planks	...	703	867	8	6	I	„ „
Thitmin „	...	3,394	2,863	0	3	III	„ „
Gurjun „	...	8,833	6,430	1	6	IV	„ „
Chuglam „	...	165	142	10	6	V	„ „
	166	16,642	14,363	14	2		

These amounts are in most cases nett prices, that is, the gross prices less the Calcutta charges for landing and Agent's charges for commission and land rent.

*This quantity appears in the return No. 56 as difference found in taking stock. This timber was, however, evidently sawn up, but not recorded in the register.

19. *Rangoon Depôt.*—The only transactions were in gurjun planks, all sawn at the Chatham Saw Mill.

In this depôt 1,082 bundles or 6,042 cubic feet gurjun planks were received, and 898 bundles or 5,035 cubic feet or 107 tons were sold, realising R2,501 or R24·8 a ton, after deducting freight and Agent's charges, or R32·3 without deducting freight. A contract for about 10 tons monthly for a year was carried out at R36-8-0 per ton. This amount has been reduced by Agent's charges to R32·3 as above. On the expiry of the year in March 1889 the purchasers declined to renew it at a higher rate than R30, which offer could not be accepted.

20. *London Depôt.*—The opening balance was—

		C. ft.		
Padouk squares . .	669	25,050	} Cargo of *Anne Main* despatched in	
„ planks . .	171	1,897	} March 1888.	
„ „ . .	800	3,783		
Koko „ . .	305	1,384	1,945	32,154 C. ft.

Padouk planks 118, measuring 1,285 cubic feet, were transferred from Calcutta.

		C. ft.	*R*
The sales were—Padouk planks .	905	4,910	6,604
Koko „ .	304	1,360	989
	1,209	6,270	7,593

The cargo of the ship *Anne Main* remained unsold. Since the close of the year, however, the greater part of the cargo, if not the whole, has sold at prices of 3*s.* and 3*s.* 3*d.* a cubic foot, and arrangements are being made to charter a ship for 900 tons more of this timber.

The planks sent to London by the *Anne Main* were hand-sawn, and the squares rough hewn.

2. Removal of Produce by Purchasers.

21. License-holders extracted as follows:—

29,663	cubic feet	timber, of which all but 98 cubic feet was of the 4th class.	
4,000	„	poles, estimated contents of 8,000 poles, the out-turn of four licenses.	
15,250	„	solid wood in form of firewood.	
2,000	„	ditto charcoal.	
146,000	„	bamboos, estimated (see form No. 55).	
282,000	„	canes ditto.	
196,500	„	rattan roots ditto.	
		thatch R147	294 licenses.
		betel-nuts „ 2	1 „

The charge for cutting timber, 4th class, is two annas a tree for the license, and during the year under review R1 per ton timber, measured in the log on the saw-pit. This charge should have been R3 per ton under the orders in force.

3. Free Grants of Forest Produce.

22. The following produce was removed free of charge:—

Poles, firewood, bamboos, thatch, and grass allowed to be removed free without license by ryots in certain areas under section 490, Andaman and Nicobar Manual.

Timber, fuel, &c., removed by District Officers from the forests for use on Government works, and to some extent for export.

No attempt is made to calculate the produce removed by ryots except in the case of fuel. Of produce removed by District Officers their own estimate is entered in returns Nos. 54, 55.

CHAPTER V.

Financial Results.

23. Under orders from the Chief Commissioner the following calculation is rather full.

To calculate the cost per ton of cutting, dragging and floating logs to sale depôts.

The total expenditure chargeable to timber works, see return No. 62, was R56,959. From this deduct the charges connected with timber subsequent to its arrival at the depôts.

	R	R
A. I. a.—Payments to Calcutta Agents	568	
Freight	4,682	
Purchase of sawn timber, Chatham	15,219	
Sawing at Pirij (for London)	1,484	
„ Port Blair	58	
Share of establishment A. I.a	100	
		22,571
B.—Part		2,000
		24,571
Deducting this sum from R56,959 there is a balance of		32,388*
Adding the interest on the capital necessary to purchase and keep up a staff of 19 elephants, as per paragraph 24 of Report for 1886-87, R324 × 19		6,156
There is a total of		38,544

chargeable to the extraction and delivery at the local depôts of the following timber:—

	C.ft.
Timber received in Haddo Depôt	131,870
„ sold from Forest Depôts	46,782
„ received in Pirij	38,537
TOTAL	217,189 or 4,348·8 tons.

As the Pirij timber (38,537 cubic feet) had been felled and squared in previous years, half only is taken into this calculation, and the above quantity is reduced by 19,269 cubic feet. R38,544 may thus be taken as the charges on 197,920 cubic feet or 3,958 tons timber, which gives a cost of R9·7 per ton, as compared with R14·2 estimated in paragraph 25 of the Forest Report for 1886-87. So it may be assumed that for the year under review it cost R10 per ton to cut and deliver timber in the log at Port Blair and Pirij.

24. A comparison with the figures for 1886-87 shows that more timber was brought to depôt during the year under review than in that year, while the total charges were slightly less.

	R
Cash	10,960
Book transfer	21,428
TOTAL	32,388

25. This sum of R38,544, allowing cash for the interest on the up-keep of the elephant staff, consists of cash R17,116 and book transfer R21,428; so the cost per ton was—

	R
Cash	4·3
Book transfer	5·4
	9·7

This sum of R5·4, though adjusted by the Forest Department by book transfer, includes a sum of R2·5 for feed of elephants and buffaloes, in reality representing cash expenditure by the Commissariat Department, which would not be incurred if the labour of the convict settlement were employed on works other than extraction of timber.

So the extraction of timber in reality costs cash R6·8, and R2·9 of the general expenses of the Settlement, such as feed, &c., &c., of convicts.

26. The cost of dragging was—

	R
Keep and feed of cattle, 19 elephants and 9 buffaloes	13,318
Interest on capital represented	6,156
	19,474

which, distributed over the 4,349 tons dragged, makes a cost of R4·5 per ton, or about half the total cost.

27. It will be noticed that the cost of R9·7 as above calculated is reduced by the practice of the local purchasers, District Officers taking delivery of part of their timber at the forest depôts, and saving the Forest Department the work of floating it to Haddo; otherwise the cost would be R11 or more per ton.

28. The quantity of timber in the log and squares sold from Haddo and out-depôts during the year was—

	No.	C.ft.	Tons.	Amount of Sale.
				R
Padouk	818	24,355	487·10	24,502
II Class	934	32,444	648·88	19,517
III „	2,220	47,056	941·12	18,992
IV „	2,910	71,976	1,439·52	14,397
V „	129	3,975	79·50	3,976
TOTAL	7,011	179,806	3,596·12	81,384

The rate per ton for the logs being R50, R30, R20, R10, and various, for the five classes respectively, and 25 per cent. higher for the few squares sold, so that for the whole timber (3,596 tons) the Department has received an average of R22·6 per ton, against an average cost of delivery of R10, giving an average royalty of R12·6 per ton for the value of the timber. But the sale of the 4th class timber (all logs) amounting to 1,439 tons for R14,397, or at R10 a ton, allows no profit, and the Forest Department has sold $\frac{2}{5}$ths of its timber for nothing.

29. A proposal for revised rates now before the Chief Commissioner fixes a price of R15 for the 4th class timber.

Taking the cost of extraction in 1886-87, R14·2, the result must have been a heavy loss on 4th class logs.

30. Calculation of the profit and loss on the Calcutta and Rangoon transactions.

The charges on the timber sent to these depôts were—

	R
A. I. a	21,087
B.	1,000
TOTAL	22,087

The practice is for the Forest Department to purchase of the Government Saw-Mill at Chatham sawn timber for export, paying for it the same rates as private purchasers, the Department having previously sold to the Saw Mill from the Haddo Depôt, also at current rates, the logs necessary to produce the scantling. These transactions with the Saw Mill therefore appear on both sides of the accounts, and the calculation of profit is complicated.

It is not possible to calculate generally for the whole, as the price paid the Saw Mill varies with the scantling purchased, and account has to be taken of the timber sold to the mill necessary to produce the scantling. The result can be calculated on each transaction separately.

31. For one ton planks, 4th class timber, say gurjun 8″ × ½″.

The Forest Department received from the mill for the timber necessary to turn out the planks (allowing 40 per cent. for wastage in sawing) the price of 1·67 tons in the logs at R10, R16·7, and from the purchaser in Calcutta or Rangoon R34·3,* R51·0.

	R
Calcutta	36·4
Rangoon	32·3
Average	34·3

It cost the Department to deliver to Chatham—

	R
1·67 timber at R10	16·7
The Department paid for the tons of planks	40·0
„ „ „ freight	7·5
Share of expenditure under B Establishments	2·0
	66·2

and there was during the year a nett deficit of R15·2 per ton of this scantling of the 4th class exported.

32. On the padouk planks exported during the year the Forest Department made a large profit, having received from the Saw Mill per ton of 6″ × 1 planks the price, at R50 a ton, of nearly 3 tons ($\frac{100}{35}$ tons) in the log necessary to produce the planks . . . . . R142·9

from the purchaser in Calcutta (R75 less Agent's charges) . . . . . 61·7 R204·6

It has cost the Department at R10 a ton to deliver the logs R10 × $\frac{100}{35}$	R28·6
Purchase of the planks	90·0
Freight	7·5
Share of expenditure under B Establishment	2 0
	R128·1

The Forest Department, partly in consequence of the heavy wastage in sawing, has thus made a profit of R76·5 per ton planks, notwithstanding that it has paid more to the Mill than it has received from the purchaser. The Saw Mill has lost on transactions in padouk planks R52·9, *plus* about R15 for the cost

of sawing, and has gained on transactions in 4th class timber. Government made a profit on the 3 tons timber of R76·5—67·9 or R8·6.

The Department incurred a loss of about R6 per ton on the Thitmin planks (III class) exported to and sold in Calcutta.

The question of revising the rates is now before the Chief Commissioner; those now in force were fixed without due regard to wastage in sawing and cost of extraction.

33. In Rangoon the timber sold was exclusively gurjun planks (IV class timber) and the Department has lost on the transactions.

34. Discriminating between cash and book transfer figures the receipts and expenditure in the transactions in gurjun planks were—

	Cash.	Book transfer.	Cash.	Book transfer.
	R	R	R	R
Sale of log to Saw Mill . .	...	16·7		
Receipts from purchasers . .			34·3	16·7
			34·3	
Cost of extraction . . .	7·4	9·3		
Payments to Saw Mill . .	...	40·0		
Freight	7·5			
Share of expenditure, B Establishment	2·0		16·9	49 3
			+ 17 4	– 32·6

shewing a loss, as above, R15·2.

35. The results of the sales of padouk in London are approximately as follows:—

> 905 pieces, measuring 4,910 cubic feet, were sold at a gross price of £733-16-9, or a nett price of £455-5-3 (R6,604).

The average gross price was therefore 3*s*. 0*d*. per cubic foot or £7-9-5 per ton, and the nett price, after deducting all expenses from Calcutta, including freight from Calcutta to London at 35 shillings a ton, was 1*s*. 10¼*d*. per cubic foot, or £4-12-8 per ton.

Expressed in rupees the gross amount of sale was R2·2 per cubic foot or R108·7 per ton, and the nett amount was R1·3 per cubic foot or R67·4 per ton.

Assuming this wood to have been originally cut by self-supporters on contract at R20 a ton, the following additional cost was incurred per ton planks:—

	R
Payment to contractor	20
Freight to Calcutta 7 5 Calcutta Agent's charges, say 13·3	20·8
Share of B Establishment expenditure	2·0
TOTAL	42·8

Deducting this from R67·4 there is a profit per ton planks of R24·6. Had these planks been shipped direct to London by a chartered vessel, the freight would have been about 42 shillings instead of 35 shillings, or say R5·3 more, but the above charge of R20·8 would have been saved and the nett profit would have been R15·5 better or R40·1 per ton.

36. The percentage of wastage in sawing on which the above calculations are based, will be checked from time to time.

37. The financial results for the year were—

	Cash.			Book transfer.			Total.		
	R	a.	p.	R	a.	p.	R	a.	p.
Revenue	26,995	4	2	79,079	5	6	1,06,074	9	8
Expenditure . . .	18,310	5	9	38,984	13	5	57,295	3	2
Surplus	8,684	14	5	40,094	8	1	48,779	6	6

To this surplus of R48,779 should be added the increase in value of stock in depôts (return No. 57) amounting to R48,617, and R4,750 should be deducted on account of the depreciation in the value of the elephants, leaving a nett surplus of R92,646.

38. In return No. 60 for 1887-88 were entered the sales of certain timber in Calcutta which had been reported by the Agents as sold, but the proceeds of which had not been realised. These sales were entered at a valuation, the exact amounts not being known, and the sums due appeared as outstandings at the close of the year. The receipts on these transactions during the year under review were in some cases in excess and in some cases below the amounts held outstanding, whence the adjustment in the margin of that return.

39. The receipts and expenditure of the year compare as follows with the revised budget estimate conditionally sanctioned in Government of India, Revenue and Agricultural Department, Nos. 183 to 186 F. of 27th February 1889:—

		Cash.	Book transfer.	Total.
		R	R	R
Receipts	Revised Estimate .	70,162	70,235	1,40,397
	Actuals . .	26,995	79,079	1,06,074

No proceeds of the sale of the *Anne Main's* cargo were realised during the year. For this a sum of R48,600 was provided; on the other hand, sales in Calcutta (R14,472) and Rangoon (R2,701) have realised more than anticipated.

		Cash.	Book transfer	Total.
		R	R	R
Expenditure	Revised Estimate .	42,061	33,963	76,024
	Actuals . .	18,310	38,985	57,295

A sum of R24,000 for freight and Agent's charges on the *Anne Main's* cargo was provided in the revised budget and not expended. Feed and keep of elephants cost about R2,000 more than provided for.

CHAPTER VI.

General Remarks.

40 The elephants have suffered during the year at Shoal Bay; they were frequently laid up with sore feet, due probably to the saline soil. They rapidly recovered on transfer to the other forests, but out of the 19, several are generally laid up with sores from dragging. The elephant Jemadar, Sowdagur, transferred from the Kheddah Department at Dacca in October last, is an energetic officer, and looks after the sick elephants well. One of the elephants, Napier, ran away on the 14th February last, was seen several times afterwards in the forests near Miletilek, but has not yet been caught. Two expeditions have failed to bring him back, and there is no chance of catching him till the drought reduces the number of drinking places.

The nine buffaloes are in good condition.

41. With reference to demi-official circular No. 6 of 2nd May 1889, from the Inspector General of Forests, no portable tramways have been tried in the Andamans. The Deputy Conservator has recently been considering the question with a view to reducing the present cost of dragging and to save the elephants now overworked. He will address the Chief Commissioner when his plans are more matured.

E. G. CHESTER,

Deputy Conservator of Forests, Andamans.

PORT BLAIR;
6th August 1889.

Form No. 52.

Area of Plantations, 1888-89.

Division.	Name of Plantation.	Area in Acres.				Receipts of the year.	Charges of the year.	Remarks.
		On 1st April 1888.	Added during the year.	Excluded during the year.	Area on 31st March 1889.			
Andamans.	Regular Plantations—							
	Navy Bay . .	10	...	...	10	...	...	
	Goplakabang .	49	...	...	49	...	308	
	Cultural Operations—							
	Dhuni khari . .	...	...	...	...	...	...	
	Goplakabang lines	...	...	...	...	...	28	
	Do. seed clearing . .	...	...	...	...	...	...	
	Total .	59	...	...	59	...	336	

Form No. 53.

Trees felled or girdled by Government Agency during the year 1888-89 (Selection fellings).

Division.	Trees felled or girdled.		Remarks.
	Description.	Number.	
Andamans . .	I Class Padouk . . .	495	
	II „ Pyimma . . .	440	
	„ „ Lakuch . . .	73	
	III „ Toungbeing . . .	427	
	„ „ Gangaw . . .	125	
	„ „ Mohwa . . .	154	
	„ „ Thitmin . . .	666	
	„ „ Thingun, white . .	43	
	V „ Marble-wood . . .	17	
	„ „ Chuglum, black . .	70	
	IV „ Koko	124	
	„ „ Gurjun . . .	831	
	„ „ Simal (Didu) . .	5	
	„ „ Bombway . . .	2	
	„ „ Chunmu . . .	27	
	„ „ Chai-wood . . .	5	
	„ „ Palawa . . .	4	
	„ „ Mangrove . . .	8	
	„ „ Uwegi	2	
	„ „ Thabyai . . .	1	
	„ „ Papita	12	
	„ „ Lalchinni . . .	1	
		3,532	

Form No. 54.

Outturn of Timber and Firewood during the year 1888-89.*

Division.	Description of Materials.	Outturn in cubic feet. Selection fellings.	Clearances.	Thinnings.	Total	Removed by: Government Agency.	Purchasers.	Free Grants.	District Officers.	Remarks.
Andamans	Padouk	61,310	...	...	61,310	61,310	..	...	...	
	Pyinma	30,190	...	...	30,190	30,190	...	...	...	
	Lakuch	1,737	...		1,737	1,737	...	...	...	
	Toungbeing	20,115	...		20,115	20,077	38	...	.	
	Gangaw	3,685	...	...	3,685	3,685	...	...	...	
	Thingun, white	2,906	...	...	2,906	2,855	51	...	...	
	Thitmin	12,247	...	...	12,247	12,247	...	...	...	
	Mohwa	6,911	..	...	6,911	6,911	.	...	...	
	Marble-wood	369	..	...	369	360	9	...	...	
	Chuglum, black	4,388	..	..	4,388	4,388	..	...	...	
	Koko	5,501	...	...	5,501	5,501	.	...	...	
	Gurjun	93,941	..	..	93,941	64,728	29,213	...	..	
	Mangrove	395	...	...	395	395	...	...	...	
	Thabyai	396	...		396	396	...	...	..	
	Chunnu	959	..	...	959	959	...	...	...	
	Lalchinni	87	...	...	87	87	.	...	...	
	Lingyow	24	...	..	24	24	...	...	...	
	Chuglum, white	250	...		250	..	250	...	...	
	Palawa	54		.	54	54	..	...	...	
	Simal or Didu	770	...	...	770	770	...	..	...	
	Uwegi	48	.	...	48	48	...	...	.	
	Chai wood	84	...	...	84	84	...	...	...	
	Bombway	186	.	..	186	186	...	...	...	
	Papita	144	...	...	144	144	...	...	..	
	Khaya	52	...	...	52	52	...	...	...	
	Chandan	102	...	...	102		102	...	..	
	Timber of all kinds	29,689	...	...	29,689	..	...	...	29,689	743 logs by Southern District Officer, say 18,575 c.ft.
	Padouk planks	...	...	...	...		...	...	...	Other timber . . 11,114 ,,
	,, slabs	1	...	..	1	1	..	...	...	29,689
		276,541	...	...	276,541	217,189	29,663	...	29,689	
	Bullies, 4, one-month licenses	4,000	...	...	4,000	..	4,000	...	...	
	,, Northern District, 2,669	...	...	...	...	..	...	...	...	4 licenses at 2,000 poles per license, each 0·5 cubic feet = 4,000 cubic feet.
	,, Southern ,, 20,755									
	—23,424	11,712	...	..		...	...	...	11,712	
	Posts, Northern ,, 84	...	...	...	52,960	...	...	...	...	
	,, Southern ,, 3,889									
	—3,973	39,730	...	...		...	..	...	39,730	
	Paries, Southern ,, 759	1,518	...	...		...	...	..	1,518	
	Firewood	135,250	...	.	135,250	...	†15,250	‡120,000	...	† 20 cords = 1,750 c.ft.
	Charcoal, licenses 8, at 250 cubic feet	2,000	...	..	2,000	.	2,000	...	...	27 licenses, at 500 = 13,500 ,,
	Firewood, Northern District, 5,585 cords	...	810,687	..	810,687	...	..	...	810,687	15,250
	,, Southern ,, 3,680 ,,	...								
	Charcoal, Northern ,, 6,564 maunds	...	118,027	...	118,027	...	...	...	118,027	‡ Estimate of 1887-88 accepted as an estimate for 1888-89.
	,, Southern ,, 10,297 ,,	...								
	Total	470,751	928,714	...	1,399,465	217,189	50,913	120,000	1,011,363	

* Charcoal should be shown by its equivalent in firewood.

Form No. 55.

Outturn of Minor Forest Produce during the year 1888-89.

Division.	Description of Produce.	Produce removed or utilized. By Government Agency. Quantity.	By Government Agency. Value.	By Purchasers. Quantity.	By Purchasers. Value.	By Free Grants. Quantity.	By Free Grants. Value.	By Right-holders. Quantity.	By Right-holders. Value.	Total. Quantity.	Total. Value.	Remarks.
			℟		℟		℟		℟		℟	
Andamans.	Bamboos . .	*216,385	108	146,000	73	...	...	...	...	362,385	181	* By District Officers. Not by the Forest Department.
	Canes . .	*252,423	84	282,000	94	...	...	...	...	534,423	178	
	„ roots .	...	...	196,500	262	...	...	...	...	196,500	262	
	Thatch leaves .	*3,508,600	439	1,176,000	147	...	...	...	...	4,684,600	586	
	Betel-nuts .	...	...	...	2	...	...	...	...	...	2	℟ Revenue IIe . 72 „ IIe . 506 578
	Bark, tying, lb .	*1,500	...	...	...	...	...	...	...	1,500	...	
	„ tanning, Mds.	*1,400	...	...	...	...	...	...	...	1,400	...	By mistake ℟1 for bamboos was credited to IIe.
	Total .	...	631	...	578	...	...	...	...	...	1,209	

Bamboos,	73 licenses, say at	2,000	=	146,000
Canes,	188 „ „	1,500	=	282,000
„ roots	131 „ „	1,500	=	196,500
Thatch leaves,	294 „ „	4,000	=	1,176,000

Bamboos,	Northern District	36,385			
„	Southern „	180,000			
				216,385	
Canes,	Northern „	2,818 bdles.	=	70,470	
„	Southern „			181,973	
					252,423
Thatch leaves,	Northern „	330,690 bdles.	=	3,306,800	
„	Southern „			201,800	
					3,508,600

Form No 56.

Account of Timber and other Produce cut or collected by Government Agency and brought to Sale Depôts, or sold locally during the year 1888-89.

Particulars	No. or quantity.	Cubic feet.	Total of each head. No. or quantity.	Total of each head. Cubic feet
Balance at commencement of year in Sale Depôts—				
Balance in Haddo Depôt—				
I Class . Padouk logs	37	..		
II „ . Pyimma „	78	...		
II „ . Lakuch „	2	...		
III „ . Toungbeing „	26	...		
III „ . Gangaw „	119	...		
III „ . Thingun, white „	47			
III „ . Mohwa „	7	...		
III „ . Thitmin „	7	..		
V „ . Marble-wood „	45	...		
V „ . Chuglum, black „	15	...		
IV „ . Khaya „	5	...		
IV „ . Koko „	19	...		
IV „ . Gurjun „	83	...		
IV „ . Mangrove „	17	...		
IV „ . Thabyai „	9	...		
IV „ . Chunnu „	9	...		
IV „ . Lalchinni „	8	.		
IV „ . Lingyow „	9	...		
IV „ . Thingun, red „	3	...		
IV „ . Palawa „	1	—		
IV „ . Twegi „	5	...		
IV „ . Nobay „	1	..		
IV „ . Lettouk „	13	...		
IV „ . Chai „	4	...		
IV „ . Bombway „	1	...		
I „ . Padouk crooks	12	...		
I „ . „ planks	81	...		
			663	

Particulars.	No or quantity.	Cubic feet.	Total of each head. No. or quantity.	Total of each head. Cubic feet.
Removed by Purchasers from Depôts—				
Haddo—				
Padouk logs	641	19,686		
„ squares	16	495		
Pyimma logs	420	13,085		
„ squares	10	404		
Lakuch logs	35	609		
Toungbeing „	311	7,436		
„ squares	3	101		
Gangaw logs	248	6,083		
Thingun, white „	45	1,383		
Thitmin „	856	10,908		
Mohwa „	151	3,608		
Marble-wood „	14	226		
Chuglum, black „	30	906		
Khaya „	4	80		
Koko „	99	2,311		
„ squares	1	48		
Gurjun logs	2,617	63,041		
Mangrove „	8	704		
Thabyai „	6	198		
Chunnu „	10	357		
Lalchinni „	4	117		
Lingyow „	8	191		
Thingun, red „	1	34		
Lettouk „	2	59		
Chai „	9	111		
Bombway „	1	94		
Dida or Simal „	22	768		
Padouk slabs	65	...		
			5,637	133,023*
Pirij—				
Padouk slabs	2	1	2	1

* Not included in the general totals.

Account of Timber and other Produce cut or collected by Government Agency and brought to Sale Depôts or sold locally during the year 1888-89—continued.

Particulars	No. or quantity.	Cubic feet	Total of each head. No. or quantity.	Total of each head. Cubic feet.
Balance in Calcutta Depôt—				
Padouk squares	77	1,889		
„ planks	...	1,884		
„ „	...	350		
„ telegraph posts	100	365		
Gurjun spars	17	1,711		
Koko planks	...	193		
Chuglum „	...	170		
Marble wood „	...	52		
Balance in Rangoon Depôt	*Nil.*	*Nil.*	194	6,614
Balance in London Depôt—				
Padouk squares	669	25,090		
„ planks	171	1,897		
„ „	800	3,783		
Koko „	305	1,384		
			1,945	32,154
Received by Transfer from Forest Depôt (the Forest Depôt of this name being constituted a Sale Depôt)—				
Balance in Pirij Depôt—				
Padouk squares	167	8,812		
			167	8,812
Received from Forest Depôts in Sale Depôts—				
Haddo—				
Padouk logs	620	...		
Pyinma „	403	...		

Particulars	No. or quantity.	Cubic feet.	Total of each head. No. or quantity.	Total of each head. Cubic feet.
Calcutta—				
Padouk squares	117	2,968		
Lakuch „	26	297		
Marble-wood „	6	68		
Mohwa „	7	96		
Gangaw „	10	118		
Padouk planks	...	703		
Chuglum „	...	165		
Gurjun „ in bundles	...	8,833		
Thitmin „	...	3,394		
Rangoon—			166	16,642
Gurjun planks, bundles	898	5,035		
			898	5,035
London—				
Padouk planks	905	4,910		
Koko „	304	1,360		
			1,209	6,270
Received from Forests and sold locally—				
Padouk logs	94	4,173		
Pyinma „	441	17,515		
„ squares	3	182		
Lakuch logs	25	649		
Toungbeing „	385	11,557		
Gangaw „	4	109		
Thingun, white „	51	1,677		
Mohwa „	107	3,311		
Thitmin „	59	883		
Marble-wood „	3	75		
Chuglam black „	82	2,768		
Khaya „	2	52	...	

Lakuch „	64	...		
Toungbeing	355	...		
Gangaw	149	...		
Thingur, white	38	...		
Thitmin	947	...		
Mohwa	150	...		
Marble-wood	22	...		
Chuglum, black	54	...		
Khaya	...	...		
Koko	104	...		
Gurjun	2,697	...		
Mangrove	4	...		
Thabyai	12	...		
Chunnu	13	...		
Lalchinni	3	...		
Lingyow	1	...		
Simal or Didu	22	...		
Palawa	...	...		
Uwegi	4	...		
Nobbay	...	...		
Lettouk	...	...		
Chai-wood	7	..		
Bombway	2	...		
Papita	12	...		
Padouk crooks	...	...		
„ planks	125	...		
„ slabs	65	...	5,873	...
PIRIJ—				
Padouk squares	784	38,537	784	38,537
FOUND IN DEPÔTS—				
Haddo—				
Padouk logs	2	...	2	...
PIRIJ—				
Padouk slabs	2	1	2	1
Koko „	91	3,005		
Mangrove „	6	255		
Chonnu „	17	517		
Palawa „	2	54	1,372	46,782
CONVERTED IN DEPÔT—				
Pirij—				
Logs	471	23,042		
DIFFERENCE ON TAKING STOCK—				
Pirij—				
Logs	48	1,537	519	24,579
LOST OR WRITTEN OFF AS USELESS—				
Haddo—				
Thitmin logs	10			
Gangaw „	3	..		
Mangrove „	12	...		
Marble-wood „	3	...		
Gurjun „	9	...	37	...
USED BY THE DEPARTMENT—				
Haddo—				
Papita logs	12	...	12	...
Rangoon—				
Didu planks	16	1		
London—				
Padouk planks	1	4		
Koko „	1	24	18	29
TRANSFERRED TO OTHER SALE DEPÔTS—				
Haddo to Calcutta—				
Padouk planks	95	1,040	95	(1,040)*

* Not included in the general totals.

Account of Timber and other Produce cut or collected by Government Agency and brought to Sale Depôts, or sold locally during the year 1888-89—concluded.

Particulars.	Number or quantity	Cubic feet.	Total of each head. Number or quantity.	Total of each head. Cubic feet.
Received from Chatham Saw Mill into Calcutta Depôt—				
Padouk squares	50	1,492		
„ planks	...	511		
„ „	...	30		
Gurjun „	..	8,934		
Marble-wood squares	6	69		
Mohwa „	7	103		
Gangaw „	10	108		
Lakuch „	26	296		
Thitmin planks	...	4,284		
Padouk scantlings	96	243		
Gurjun „	609	526		
Rangoon Depôt—			804	16,596
Gurjun planks, bundles	1,082	6,042		
Didu „	16	1		
London Depôt—			1,098	6,043
	Nil.	*Nil.*		
Received from Forests, purchased of Contractors.	*Nil.*	*Nil.*		
Received from Forest and sold locally—				
Padouk logs	94	4,173		
Pyimma „	444	17,697		
Lakuch „	25	649		
Toungbeing logs	385	11,557		
Gangaw „	4	109		
Thingun, white, logs	51	1,679		
Mohwa	107	3,311		
Thitmin	59	883		
Marble-wood	3	75		
Chuglum, black	82	2,768		
Khaya	2	52		
Koko	91	3,005		
Mangrove	6	255		
Chunnu	17	517		
Palawa	2	54		
			1,372	46,782

Particulars.	Number or quantity.	Cubic feet.	Total of each head. Number or quantity.	Total of each head. Cubic feet.
Calcutta to London—				
Padouk planks	...	1,255		
Ditto	...	30		
				1,285
By Remeasurement—				
Calcutta—				
Marble-wood squares	...	1		
Mohwa „	...	7		
Chuglam planks	...	5		
Thitmin „	...	2		
Rangoon—				
Gurjun planks	...	2		
London—				
Padouk	...	124		
			...	141
Balance at close of year—				
Haddo—				
Padouk logs	2	...		
Pyimma „	51	...		
Lakuch „	31	...		
Toungbeing „	67	...		
Gangaw „	17	...		
Thingun, white, logs	40	...		
Thitmin	88	...		
Mohwa	6	...		
Marble-wood	50	...		
Chuglum, black	39	...		
Khaya	1	...		
Koko	23	...		
Gurjun	154	...		
Mangrove	1	...		
Thabyai	15	...		
Chunnu	12	...		
Lalchinni	7	...		
Lingyow	2	...		
Thingun, red	2	...		

Received by Conversion in Depôt—				
Pirij—				
Padouk planks	306	1,641		
„ „	2,159	12,232		
			2,465	13,873
Received by Transfer from Sale Depôts—				
London, received from Calcutta—				
Padouk planks	118	1,285		
Calcutta from Haddo—				
Padouk planks	...	1,040		
			118	2,325
Received by Remeasurement in Depôt—				
Calcutta—				
Padouk squares	...	27		
Gangaw „	...	10		
Lakuch „	...	1		
Rangoon—				
Gurjun planks	...	1		
				39
Total	...	...	15,487	171,776

Palawa	1	...		
Uwegi	9	...		
Nobbay	1	...		
Lettouk	11	...		
Chai	2	...		
Bombway	2	...		
Padouk crooks	12	...		
„ planks	95	...		
„ „ from contractors	16	...		
Pirij—				
			757	...
Padouk squares	432	22,770		
„ planks	2,465	13,873		
			2,897	36,643
Calcutta—				
Padouk squares	10	440		
„ planks	...	1,551		
„ „	...	276		
„ telegraph posts	100	365		
„ scantlings	96	243		
Koko planks	...	193		
Marble-wood planks	...	52		
Gurjun „	...	101		
„ spars	17	1,711		
„ scantlings	609	526		
Thitmin planks	...	888		
Rangoon—			832	6,346
Gurjun planks	184	1,006		
			184	1,006
London—				
Padouk squares	669	25,090		
„ planks	183	1,927		
			852	27,017
Total	...	...	15,487	171,776

Form No. 57 A.

Abstract showing the Value of Timber and other Produce at Sale Depôts for the year 1888-89.

Description of Timber and other produce.	On hand at commencement of the year.			On hand at close of the year.			Difference in Value.		Remarks.
	No.	C. ft.	Value.	No.	C. ft.	Value.	In favour of the year.	Against the year.	
			R			R	R	R	
Haddo Depôt—		*			*				* Cubic contents.
Logs, &c. . . .	663	14,393	7,956	757	14,403	6,100	...	1,856	Approximately calculated.
Pirij padouk squares .	167	8,812	7,049	432	22,770	18,216	11,167	...	Not shown as sale depôt, 1887-88.
„ „ planks .	...	...	...	2,465	13,873	16,647	16,647	...	
Calcutta padouk squares	77	1,889	1,889	10	440	440	...	1,449	
„ „ Planks .	..	2,234	2,234	...	1,506	1,882	...	352	
„ „ „ .	...	...	...	...	321				
„ Telegraph posts	100	365	...	100	365				
„ Scantlings .	...	...	...	96	243	304	304		
„ Koko planks .	...	193	30	...	193	...	...	30	
„ Chuglum „ .	...	170	68	...	...	...	...	68	
„ Marble-wood „ .	...	52	20	...	52	...	...	20	
„ Thitmin „ .	...	...	...	...	888	710	710		
„ Gurjun „ .	...	...	...	...	101	80	80		
„ „ Spars .	17	1,711	1,800	17	1,711	1,600	...	200	
„ „ Scantlings	...	...	...	609	526	420	420		
Rangoon Gurjun planks .	...	..	...	...	1,006	600	600		
London—									
Padouk squares . .	669	25,090	25,090	669	25,090	50,180	25,090		
„ Planks . .	971	5,680	5,680	183	1,927	3,854	...	1,826	
Koko „ . .	305	1,384	600	...	...	...	...	600	
									Favour 55,018
									Against 6,401
									48,617
Total .	2,969	61,973	52,416	5,338	85,415	1,01,033	55,018	6,401	

Form No. 57 B.

Abstract showing the Value of Live Stock and other Produce at Sale Depôts for the year 1888-89.

Description of Timber and other produce.	On hand at commencement of the year.			On hand at close of the year.			Difference in Value.		Remarks.
	No.	C. ft.	Value.	No.	C. ft.	Value.	In favour of the year.	Against the year.	
			R			R		R	
Elephants	19	...	47,500	19	...	42,750	...	4,750	Ten per cent. deducted.

Form No. 58.

Summary of Revenue and Expenditure of the Andamans Forest Department during 1888-89.

REVENUE.

	R	a.	p.
I.—Timber and other Produce removed from the Forests by Government Agency :—			
a. Timber	1,04,733	0	4
b. Firewood and charcoal	...		
c. Bamboos	...		
d. Sandal-wood	...		
e. Grass and other minor produce	...		
II.—Timber and other Produce removed from the Forests by Consumers or Purchasers :—			
a. Timber	662	15	2
b. Firewood and charcoal	36	0	0
c. Bamboos	72	0	0
d. Grazing and fodder grass	...		
e. Other minor produce	506	0	0
III.—Drift and Waif Wood, and confiscated Forest Produce :—	...		
IV.—Revenue from Forests not managed by Government :—			
a. Duty on foreign timber and other forest produce	...		
b. Revenue from shared and private forests	...		
V.—Miscellaneous :—			
a. Fines and forfeitures	1	0	0
b. Refunds	61	2	0
c. Other sources	2	8	2
Total Revenue	1,06,074	9	8

EXPENDITURE.

A.—*Conservancy and Works*—			
I.—Timber and other Produce removed from the Forests by Government Agency :—			
a. Timber	32,326	4	7
b. Firewood and charcoal	...		
c. Bamboos	...		
d. Sandal-wood	...		
e. Grass and other minor produce	...		
II.—Timber and other Produce removed from the Forests by Consumers or Purchasers :—			
III.—Drift and Waif Wood and confiscated Forest Produce :—	...		
IV.—Revenue from Forests not managed by Government :—			
a. Duty on foreign timber and other forest produce	...		
b. Revenue from shared and private forests	...		
V.—Rent of Leased Forests and Payments to Shareholders in Forests managed by Government :—	...		
VI.—Live Stock, Stores, Tools and Plant :—			
a. Purchase of cattle	...		
b. Feed and keep of cattle	13,318	6	2
c. Purchase of stores, tools and plant	1,185	12	0
VII.—Communications and Buildings :—			
a. Roads and bridges	...		
b. Buildings	...		
c. Other works	...		

VIII.—Demarcation, Improvement and Extension of Forests :—			
a. Demarcation	...		
b. Compensation for land and rights	...		
c. Surveys and working-plans	...		
d. Sowing and planting	336	1	11
e. Protection from fire	...		
f. Other works	...		
IX.—Miscellaneous :—			
a. Refunds	...		
b. Law charges	...		
c. Other charges	12	10	0
Total A.—Conservancy and works	47,179	2	8
B.—*Establishments* —			
I.—Salaries :—			
a. Conservators	...		
b. Superior officers	7,630	10	7
c. Subordinate forest and depôt establishments	...		
d. Office establishments	...		
e. Deputation and special allowances	551	1	10
II.—Travelling Allowances—			
a. Conservators	...		
b. Superior officers	1,904	14	1
c. Subordinate forest and depôt establishments	...		
d. Office establishments	...		
III.—Contingencies—			
a. Stationery	...		
b. Carriage of tents and records	...		
c. Rents, rates and taxes	...		
d. Pay of police guards	...		
e. Official postage	16	8	0
f. Sundries	12	14	0
Total B.—Establishments	10,116	0	6
Grand Total of Expenditure	57,295	3	2

JAMES TAYLOR,
Asst. Comptroller General (Forests).

Calcutta,
17th May 1889.

Form No. 59.

Dr. *Account Current for the year 1888-89.* **Cr.**

	R	a.	p.	R	a.	p.		R	a.	p.	R	a.	p.
To Cash Balance	...			142	10	0	By Expenditure as per Annual Summary Form No. 58	...			57,295	3	2
„ VIII.—Assessed Taxes—							„ Deposits	...			...		
Income Tax—Deductions from Salaries	...			207	15	6							
„ Revenue as per Annual Summary, Form No. 58	...			1,06,074	9	8	„ Forest Cash Remittances—Local—						
„ Service Funds—							Remittances to Treasuries	25,617	14	6			
Civil Fund—Ordinary, Bengal	...			...			Inter-Divisional Transfers	...			25,617	14	6
„ Additional, Bengal	...			...			„ Advances Recoverable	...			1,914	12	0
Military Fund—Bengal	...			...			„ Suspense	...			...		
„ „ Madras	...			...									
„ Orphan Fund—Bengal	...			...									
Uncovenanted Service Family Pension Fund—Bengal	174	10	0	...									
General Family Pension Fund	...			...									
Hindu Family Annuity Fund	...			...			„ Account Current (other Governments)—						
				174	10	0							
„ Deposits	...						Remittances to the Government of Burma	2,748	0	0			
							Remittances to the Government of North-Western Provinces and Oudh	116	1	8			
„ Forest Cash Remittances—Local—											2,864	1	8
Forest cheques drawn	20,095	3	4	20,095	3	4							
Inter-Divisional Transfers	...			...									
„ Advances recoverable	...			545	0	0							
„ Suspense	...			...			„ Inter-Departmental Transfers—						
„ Account Current (other Governments)—							Public Works Department	...			...		
Remittances from Government of Burma	2	8	0	2	8	0							
„ Inter-Departmental Transfers—							Military Department	...			...		
Public Works Department	...			...									
Military Department, Bengal	20	0	0	...			Civil Department	...			...		
Civil Department—													
Survey of India	24	0	0	...			Miscellaneous	79,731	7	11			
Mathematical Instrument Department	...			...							79,731	7	11
Miscellaneous	40,292	7	5	...									
				40,336	7	5	„ Cash Balance	...			155	8	8
TOTAL	...			1,67,578	15	11	TOTAL	...			1,67,578	15	11

CALCUTTA,
17th May 1889.

JAMES TAYLOR,
Asst. Comptroller General (Forests).

FORM No. 60.

Revenue received and Outstandings on account of Revenue during 1888-89.

Division.	Particular.	Outstandings at commencement of year.	Value of sales and other revenue during year.	Total.	Amount realized during year.	Balance due to the Department at end of year.	Remarks
	Messrs. Ogilvy, Gillanders & Co., London—	R a. p.	R a. p.	R. a. p.	R a. p.	R a. p.	
Andamans.	Padouk squares	1,336 9 4	...	1,336 9 4	1,336 9 4	...	
	„ planks	...	6,603 9 8	6,603 9 8	6,603 9 8	...	
	Koko „	...	989 6 6	989 6 6	989 6 6	...	
	Messrs. Gillanders, Arbuthnot & Co., Calcutta—						
	Padouk squares	180 0 0	...	180 0 0	160 8 9	...	* Written off.
	„ „	...	..	...	*19 7 3		
	„ „	...	3,536 1 3	3,536 1 3	1,380 10 9	2,155 6 6	
	„ planks	150 0 0	..	150 0 0	†150 0 0	...	† Realized R187, being R37 excess.
	„ „	...	867 8 6	867 8 6	867 8 6	...	
	„ scantlings	780 0 0	...	780 0 0	‡780 0 0	...	‡ Realised R864-12-3, being R84-12-3 excess.
	„ sleepers	150 0 0	...	150 0 0	135 0 0	15 0 0	
	Lakuch squares	179 9 6	256 2 11	435 12 5	435 12 5	...	
	Marble-wood squares	...	81 7 4	81 7 4	81 7 4	...	
	Mohwa „	17 11 9	84 0 7	101 12 4	101 12 4	..	
	Gangaw „	219 0 0	102 13 4	321 13 4	321 13 4	...	
	Gurjun spars	200 0 0	...	200 0 0	184 11 6	...	
		...	...	...	*15 4 6		
	„ planks	2,000 0 0	...	2,000 0 0	1,743 7 9	...	
		...	...	..	*256 8 3		
	„ „	...	6,430 1 6	6,430 1 6	6,430 1 6	...	
	Chuglum, black, planks	...	142 10 6	142 10 6	142 10 6	...	
	Thitmin „	...	2,863 0 3	2,863 0 3	1,244 3 3	1,618 13 0	
	Unremitted revenue of previous years.	424 12 10	...	424 12 10	...	424 12 10	Recovered since close of year.
	Manekji & Co., Lucknow—						
	Padouk planks	20 10 0	...	20 10 0	20 10 0	...	
	Messrs. Emmett and Chambers—						
	Sleepers	2,624 13 8	...	2,624 13 8	...	2,624 13 8	
	Total	8,283 3 1	21,956 14 4	30,240 1 5	23,401 3 5	6,838 14 0	

Messrs. Gillanders, Arbuthnot & Co., Rangoon—						
Gurjun planks . . .	200 0 0	...	200 0 0	*200 0 0	...	* Realized R247, being R47 excess.
" " . . .	...	2,501 0 0	2,501 0 0	2,501 0 1	...	
Local Sales.						
Southern District Officer, timber .	2,642 10 2	22,488 11 7	25,131 5 9	2,642 10 2 20,148 6 8	2,340 4 11	
Northern " " " .	1,126 13 9	21,496 8 8	22,623 6 5	1,126 13 9 18,888 11 11	2,607 12 9	
" " " Chatham "	2,631 0 3	35,615 2 8	38,246 2 11	2,631 0 3 31,673 0 2	3,942 2 6	
Port Officer timber .	53 8 6	1,605 9 2	1,659 1 8	53 8 6 1,408 10 6	196 14 8	
Indian Marine, Calcutta " .	157 2 0	71 15 5	229 1 5	157 2 0	71 15 5	
" " Bombay " .	...	80 8 0	80 8 0	...	80 8 0	
Public, local	...	25 10 3	25 10 3	23 4 9	2 5 6	
	15,094 5 9	105,842 0 1	1,20,936 5 10	†1,04,855 8 1	16,080 13 9	† R1,04,855 8 1 Deduct written off 291 4 0 Add amount realized 1,04,564 4 1 in excess 168 12 3 Revenue I.a 1,04,733 0 4
Timber removed by purchasers .	...	662 15 2	662 15 2	662 15 2	...	II *a*
Firewood and charcoal purchasers .	...	36 0 0	36 0 0	36 0 0	...	" *b*
Bamboos purchasers .	...	72 0 0	72 0 0	72 0 0	...	" *c*
Other minor produce purchasers .	...	506 0 0	506 0 0	506 0 0	...	" *e*
V *a*. Fines and forfeitures . .	...	1 0 0	1 0 0	1 0 0	...	V *a*
" *b*. Refunds . . .	...	61 2 0	61 2 0	61 2 0	...	" *b*
" *c*. Other sources . . .	...	2 8 2	2 8 2	2 8 2	...	" *c*
						‡ R1,06,197 1 5 As above, deduct . 291 4 0 1,05,905 13 5 Add . . . 168 12
TOTAL .	15,094 5 9	1,07,183 9 5	1,22,277 15 2	‡1,06,197 1 5	16,080 13 9	Total Revenue . 1,06,074 9 8

Form No. 61.

Outstandings and Liabilities on account of Contractors and Disbursers for 1888-89.

Division	Department Debtor.			Department Creditor.			Balance Due		Remarks.
	At commencement of year.	Recoveries in cash and value of supplies and work done during the year	At close of year.	At commencement of year.	Payments made during year.	At close of year.	To Department (Outstandings)	By Department (Liabilities).	
		₹ a.	₹ a.		₹ a.	₹ a	₹ a.		
Andamans—		545 0	545 0	...	1,914 12	1,914 12	1,369 12		
Total	...	545 0	545 0	...	1,914 12	1,914 12	1,369 12		

Calcutta;
17th May 1889.

JAMES TAYLOR,
Asst. Comptroller General (Forests).

Form No. 62.

Financial results of the year 1888-89.

Division.	Timber and other produce removed from the forests by Government Agency		Other revenue.		Formation, protection, and improvement of forests.	Total.		Remarks
	Receipts	Charges	Receipts.	Charges.	Charges	Receipts.	Charges.	
	₹	₹	₹	₹	₹	₹	₹	
Andamans—								
Cash	25,715	18,310	1,281	...	..	26,996	18,310	
Book transfer	79,018	38,649	61	..	336	79,079	38,985	
Total .	1,04,733	56,959	1,342	...	336	1,06,075	57,295	

Port Blair;
5th August 1889.

E. G. CHESTER,
Deputy Conservator of Forests, Andamans.

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